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10/594,883	09/26/2007	Joachim Lohr	L7725.06128	5629

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EXAMINER	
AHMED, ENAM	

ART UNIT	PAPER NUMBER
2112	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/594,883	LOHR ET AL.	
	Examiner	Art Unit	
	ENAM AHMED	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 September 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30 and 32-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30 and 32-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Final

This office action is in response to applicant's amendment filed on 9/8/10.

Response to applicant's arguments

The applicant's arguments have been fully considered, however are not found persuasive.

Response to applicant's remarks

With respect to claim 30 on pages 11-12, the applicant argues Kim does not disclose or imply that the amount of information in the retransmission is reduced. In fact, as noted above, the amount of information depends on the code rate, which is disclosed constant in Kim.

The Examiner respectfully disagrees with the statement, and points out although the Kim reference does mention that a ratio of the power level of a reverse pilot signal to a power level of a supplemental channel is constant, the reason being that both of the channels are controlled, it does not in any way mean that the power levels cannot be re-adjusted, which would mean that the amount of information is also changed, example increased or decreased. In Kim it is specifically pointed out that for ex., when at initial transmission a tpr value of 10db is used, and

the number of code symbols transmitted at retransmission is 50% of those transmitted at initial transmission, a new TPR of retransmission is adjusted to 7db, which would mean that the amount of information is also being changed. Thus, the Kim reference does teach that the amount of information in the retransmission is reduced (column 8, lines 37-45).

With respect to claim 30 on page 12, the applicant argues Kim does not teach the retransmission data packet is transmitted from the mobile terminal to a base station via a second data channel, i.e, a separate data channel than the data channel used for the initial transmission.

The Examiner respectfully disagrees with the statement, and points out though it may not be very clear to the applicant from the cited text, the text clearly mentions that a ratio of the power level of a reverse pilot signal to a power level of a supplemental channel, wherein both channels are being power controlled, it should be emphasized that the fact that there are two separate channels here being referenced, one being the supplemental channel and the other being the reverse channel, which are not the same channels. Further, it is pointed out in (column 3, lines 4-23), that initial transmission is undertaken as shown in fig. 2, in step 201, and retransmission is done over the reverse supplemental channel being 205, when the reverse pilot channel 101 and the reverse fundamental channel 103 are set up. Thus, the Kim reference teaches the retransmission data packet is transmitted from the mobile terminal to a base station via a second data channel (column 3, lines 4-23).

With respect to claim 30 on page 12, the applicant argues Kim fails to teach wherein a transmission time interval of the first data channel is smaller than a transmission time interval of the second channel.

The Examiner respectfully disagrees with the statement, and points out as explained above in (column 8, lines 37-45), at initial transmission a tpr value of 10db is used which would mean a faster transmission speed, and the number of code symbols transmitted at retransmission is 50% of those transmitted at initial transmission, wherein a new TPR of retransmission is adjusted to 7db, which would mean that the amount of information is also reduced because not all the symbols are being transmitted now in consecutive retransmissions, but also the speed or in this case the time interval is also changed, because obviously the first transmission is done at a more powerful 10db, which would mean faster and more powerful transmission, as opposed to the second retransmission. Further, Kim also mentions that by retransmitting using the adjusted TPR value, it will improve the transmission performance for consecutive retransmissions. Thus, the Kim reference teaches wherein a transmission time interval of the first data channel is smaller than a transmission time interval of the second channel (column 8, lines 13-22) and (column 8, lines 37-45).

With respect to claim 32 on page 14, the applicant argues the Kim reference does not teach transmitting a retransmission data packet at the transmission power which is lower than a transmission power of the transmitted data packet.

The Examiner respectfully disagrees with the statement, and points out as explained above in (column 7, lines 37-45), at initial transmission a tpr value of 10db is used which would mean a faster transmission speed, and the number of code symbols transmitted at retransmission is 50% of those transmitted at initial transmission, wherein a new TPR of retransmission is adjusted to 7db, which would mean that the amount of information is also reduced because not all the symbols are being transmitted now in consecutive retransmissions. Thus, the Kim reference teaches transmitting a retransmission data packet at the transmission power which is lower than a transmission power of the transmitted data packet (column 7, lines 37-45).

With respect to claim 33 on page 14, the applicant argues the Kim reference does not disclose reducing a transmission power for subsequent retransmission data packets.

The Examiner respectfully disagrees with the statement, and points out is very clear from the above and also (column 8, lines 50-65), that the transmission power levels/reception performance can be re-adjusted to a specific level or higher while minimizing reverse interference, for subsequent iterations of re-transmissions. Thus, the Kim reference teaches reducing a transmission power for subsequent retransmission data packets (column 8, lines 50-65).

With respect to claim 35, the applicant argues that it is apparent from fig. 4a, steps 404-407 (column 8, line 66 - column 10, line 14), that these steps are clearly related to the operation of the base station, whereas Applicant's claim 35 is related to the operation of the mobile terminal.

The Examiner respectfully disagrees with the statement, and points out the mobile station as explicitly stated in the claim selects the transmission power based on the channel quality, power control commands from the base station, which is essentially what is taking place in steps 404-406, and finally what is being done in step 407, is the selected TPR is transmitted to the mobile station. Thus, the mobile station will select or be provided with a tpr, only based on the findings of the base station, and the Kim reference teaches selecting in the mobile terminal a transmission power for the transmission of the retransmission data packet based on at least one of a measured channel quality, power control commands received from the base station, and an additional diversity and processing gain obtained by using the longer transmission time interval on the second data channel (see fig. 4A, 404-407) and (column 9, line 63 – column 10, line 14).

With respect to claim 37, the applicant argues there is absolutely no mention of a synchronous retransmission protocol in step 305 of fig. 3a of Kim, the related description of step 305, or any other section of Kim. Kim does not even mention a “predetermined time span”.

The Examiner respectfully disagrees with the statement, and points out initially that claim 37 does not even mention a synchronous retransmission protocol, and as far as the “predetermined

time span" is concerned, it is clearly pointed out in kim, in (column 6, lines 46-53), that the mobile station retransmits data over a supplemental channel using a new tpr value, wherein retransmission of defective data can be done repeatedly until an ack signal is received, or even alternatively a method of performing retransmission as many times as a predetermined number can be used. Thus, the Kim reference teaches wherein the retransmission data packet is transmitted by the mobile terminal after a predetermined time span upon having received said feedback message (see fig. 3A, 305) and (column 6, lines 46-53).

With respect to claim 38, the applicant argues Kim does not disclose restricting the amount of information in the retransmission data packet.

The Examiner respectfully disagrees with the statement, and points out in (column 12, lines 6-33), it is taught wherein the mobile station analyzes the control information as well as the nack, and determines the number of code symbols which can be transmitted, which is included within the retransmission control information. Thus, the Kim reference teaches restricting the amount of information in the retransmission data packet (column 12, lines 16-33).

With respect to claim 42, the Applicant argues portions of Kim fail to mention an "acknowledgement channel" or a "scheduling related control channel". The Examiner respectfully disagrees with the statement, and points out ack as well as nack channels are clearly seen in fig. 3b. As far as the scheduling related control channel, though the Kim reference may not explicitly define a scheduling related control channel, it is very clear to the Examiner that

this is just another channel wherein the control information is being transmitted, and as seen in fig. 3b of Kim, in step 313, information related to the nack as well as the number of code symbols that need to be transmitted sent through a nack, wherein in step 315, the code symbols that need to be retransmitted are determined and retransmitted, and this can very well be a control channel or a scheduling related control channel. Thus, the Kim reference teaches wherein the feedback message is transmitted via an acknowledgment channel (see fig. 3b, 317); and the control message is transmitted via a scheduling related control channel (see fig. 3b, 315).

35 U.S.C. 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 30 and 32-52 are rejected under 35 U.S.C. 102(e) as being unpatentable over Kim et al. (U.S. Patent No. 7,200,789).

With respect to claim 30, the Kim et al. reference teaches transmitting a data packet from the mobile terminal to the base station via a first data channel (column 3, lines 11-14) and (see fig. 2, 201),receiving a feedback message from the base station at the mobile terminal, wherein

the feedback message indicates whether the data packet has been successfully received by the base station (column 3, lines 114-19) and (see fig. 2, 203), and in case the feedback message indicates that the data packet has not been received successfully, transmitting a retransmission data packet from the mobile terminal to the base station via a second data channel (column 3, lines 4-23) and (see fig. 2, 205), wherein a transmission time interval of the first data channel is smaller than a transmission time interval of the second data channel (column 8, lines 13-22) and (column 8, lines 37-45).

With respect to claim 32, the Kim et al. reference teaches determining a transmission power for a retransmission of the data packet, in case the feedback message indicates that the data packet has not been received successfully (see fig. 3A, 303), wherein the retransmission data packet is transmitted at a transmission power lower than the transmission power of the transmitted data packet (column 7, lines 37-45).

With respect to claim 33, the Kim et al. reference teaches subsequently reducing a transmission power for subsequent retransmission data packets that are sent for the unsuccessfully received data packet (column 8, lines 50-65).

With respect to claim 34, the Kim et al. reference teaches soft combining each retransmission data packet with the data packet at the base station (see fig. 2, 206).

With respect to claim 35, the Kim et al. reference teaches selecting in the mobile terminal a transmission power for the transmission of the retransmission data packet based on at least one of a measured channel quality, power control commands received from the base station, and an additional diversity and processing gain obtained by using the longer transmission time interval on the second data channel (see fig. 4A, 404-407) and (column 9, line 63 – column 10, line 14).

With respect to claim 36, the Kim et al. reference teaches wherein the retransmission data packet and the transmitted data packet comprise the same payload (column 4, lines 3-18).

With respect to claim 37, the Kim et al. reference teaches wherein the retransmission data packet is transmitted by the mobile terminal after a predetermined time span upon having received said feedback message (see fig. 3A, 305) and (column 6, lines 46-53).

With respect to claim 38, the Kim et al. reference teaches in case the feedback message indicates that the data packet has not been received successfully, receiving a control message from the base station for the unsuccessfully received data packet, wherein the control message restricts an amount of information in the retransmission data packet to be sent, wherein the retransmission data packet is transmitted from the mobile terminal to the base station and comprises an amount of information indicated in said control message(column 12, lines 16-33).

With respect to claim 39, the Kim et al. reference teaches wherein control message indicates a maximum and minimum amount of information or the maximum amount of

information sent in the retransmission data packet, wherein the information sent in the retransmission data packet comprises systematic and parity bits (column 8, lines 22-36).

With respect to claim 40, the Kim et al. reference teaches wherein the transmission of the indicated amount of information requires a reduced transmission power compared to a transmission power used for the data packet (column 7, lines 4-10).

With respect to claim 41, the Kim et al. reference teaches wherein the control message is transmitted in parallel or delayed to the feedback message from the base station to the mobile terminal (see fig. 4A, 406).

With respect to claim 42, the Kim et al. reference teaches wherein the feedback message is transmitted via an acknowledgment channel (see fig. 3b, 317); and the control message is transmitted via a scheduling related control channel (see fig. 3b, 315)

With respect to claim 43, the Kim et al. reference teaches wherein the retransmission data packet is transmitted by the mobile terminal after a predetermined time span upon having received said feedback message (column 3, lines 34-44).

With respect to claim 44, the Kim et al. reference teaches wherein the control message indicates not to transmit the retransmission data packet after a predetermined time span upon having received said feedback message (see fig. 5A, 503).

With respect to claim 45, the Kim et al. reference teaches wherein the control message is a TFC (Transmission Format Combination) control message (column 4, lines 61-67).

With respect to claim 46, the Kim et al. reference teaches soft combining the retransmission data packet and the transmitted data packet at the base station to obtain a combined data packet (see fig. 6, 206).

With respect to claim 47, the Kim et al. reference teaches decoding the combined data packet at the base station (see fig. 6, 605).

With respect to claim 48, the Kim et al. reference teaches wherein the transmitted control message indicates the amount of information to be included in the retransmission data packet which is necessary for successfully decoding the combined data packet (column 14, lines 13-38).

With respect to claim 49, the Kim et al. reference teaches determining the amount of information for the retransmission data packet at the base station based on a reception quality of the data packet or a combined data packet (see fig. 4A, 405).

With respect to claim 50, the Kim et al. reference teaches wherein the data packet and the retransmission data packet are transmitted via dedicated transport channels (See Fig. 3A).

With respect to claim 51, the Kim et al. reference teaches a transmitting unit configured to transmit a data packet to the base station via a first data channel (column 3, lines 11-14) and (see fig. 2, 201), and a receiving unit configured to receive a feedback message from the base station, wherein the feedback message indicates whether the data packet has been successfully received by the base station (column 3, lines 14-19) and (see fig. 2, 203), and wherein the transmitting unit is configured to transmit the retransmission data packet to the base station via a second data channel in case the feedback message indicates that the data packet has not been received successfully (column 3, lines 4-23) and (see fig. 2, 205), and a transmission time interval of the first data channel is smaller than a transmission time interval of the second data channel (column 8, lines 13-22) and (column 8, lines 37-45).

With respect to claim 52, the Kim et al. reference teaches a receiving unit configured to receive a data packet from the mobile terminal via a first data channel (column 3, lines 13-16) and (see fig. 2, 202), and a transmitting unit configured to transmit a feedback message to the mobile terminal, wherein the feedback message indicates whether the data packet has been successfully received by the base station (column 3, lines 16-19), and wherein the receiving unit is configured to receive a retransmission data packet from the mobile terminal via a second data channel in case the feedback message indicates that the data packet has not been received successfully (column 3, lines 4-23) and (see fig. 2, 205), a transmission time interval of the first data channel is smaller than a transmission time interval of the second data channel column 8, lines 13-22) and (column 8, lines 37-45).

Conclusion

1. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enam Ahmed whose telephone number is 571-270-1729. The examiner can normally be reached on Mon-Fri from 8:30 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman, can be reached on 571-272-3644.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EA

11/20/10

/Scott T Baderman/

Supervisory Patent Examiner, Art Unit 2114